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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/016,131 Filing Date: December 17, 2001 Appellant(s): SRINATH ET AL.

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Jim Zegeer For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed April 5, 2006 appealing from the Office action mailed December 29, 2004.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

The after final amendment filed with the Appeal Brief on April 5, 2006 has been entered.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is substantially correct. The changes are as follows:

WITHDRAWN REJECTIONS

The following grounds of rejection are not presented for review on appeal because they have been withdrawn by the examiner.

The rejection of claims 2 and 4 under 35 U.S.C. 112, first paragraph has been withdrawn and the claim has been interpreted as argued by the applicant in the appeal brief, page 8.

The rejection of claims 12 and 13 under 35 U.S.C. 112, second paragraph has been withdrawn because claims 12 and 13 have been canceled by the after final amendment filed with the appeal brief on April 5, 2006.

The rejection of claim 12 under 35 U.S.C. 102(b) as being anticipated by Babich et al. (4,205,786) has been withdrawn because claim 12 has been canceled by the after final amendment filed with the appeal brief on April 5, 2006.

The rejection of claims 12 and 13 under 35 U.S.C. 102(b) as being anticipated by Nekrasov et al. (3,614,961) has been withdrawn because claim 12 has been canceled by the after final amendment filed with the appeal brief on April 5, 2006.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

3,614,961	Nekrosov et al.	10-1971
4,205,786	Babich et al.	06-1980
6,253,782	Raghu	07-2001

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim 11 stands rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 11 recites a device comprising a fluidic spray nozzle and a means for reducing the velocity of spray droplets. The recitation "means for reducing the velocity of spray droplets issuing from said fluidic spray nozzle so that said spray droplets have energy such that they do not bounce off said surface" has been considered as invoking 35 U.S.C. 112, sixth paragraph. The specification discloses, on page 3, three methods to generate low velocity sprays, one of which (the elected species of figures 5 and 6) is to couple a conventional fluidic oscillator with a vortex valve. Similar disclosure is found on page 11. Therefore, it appears that the "means for reducing..." appears to be a double inclusion of the "fluidic spray nozzle", because as evidenced by claim 12 (now canceled), the "fluidic spray nozzle" includes the "vortex chamber". It is uncertain what is encompassed by the means plus function recitation.

Even if the means plus function claims the vortex valve chamber VVC and equivalence thereof, as identified in appellant's brief, page 6, the "means for reducing..." is a double inclusion of the "fluidic spray nozzle" because the specification discloses, on page 6, lines 10-14

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The fluidic spray nozzle is selected from the following:

- (a) low frequency multiple power nozzle oscillator,
- (b) a filter and reversing chamber oscillator,
- (c) a vortex chamber feeding a fluidic oscillator.

The vortex chamber feeding a fluidic oscillator is defined by the specification as being one of the embodiments of a "fluidic spray nozzle."

Furthermore, even if the double inclusion is not considered indefinite and the "means for reducing..." encompasses the "fluidic spray nozzle", or vice versa, the invocation of means plus function, in essence, amounts to nothing more than a single means claim, because claim 11 does not claim the means plus function in combination with another recited element of means. See MPEP 2164.08(a). Therefore, claim 11 would be non-enabled because the specification disclosed at most only those means known to the inventor.

Claims 1, 6, 7 and 11 stand rejected under 35 U.S.C. 102(b) as being anticipated by Babich et al. (4,205,786).

Regarding claim 1:

Babich discloses a fluidic spray system comprising a fluidic oscillator 2,3 (column 2, lines 60-62, "chamber 3 adjoins the nozzle 2, for amplification of the oscillations generated in the nozzle 2") coupled to a supply of liquid A and a vortex valve 1 (see figure 2) immediately upstream of said fluidic oscillator.

Claim 1 recites "a fluidic oscillator." The term "fluid" can encompass, to name a few, a liquid, gas, or fluidized particles. The claim further recites the fluidic oscillator "coupled to a supply of liquid under pressure." Claim 1 does not

require that the "liquid under pressure" be oscillated. Babich's pipe 4 has been considered part of the "fluidic oscillator" of claim 1. Therefore, the fluidic oscillator 2.3 of Babich is coupled to a supply of liquid A and the fluid B, gas in Babich's device, is oscillated. The oscillation is in the manner of acoustic oscillations of the gas. See Babich, column 2, lines 1-11.

Page 6

Recitation of intended use, "for producing a spray of liquid droplets projected with a momentum such that said liquid droplets do not bounce off of a selected surface." in the preamble has been given no patentable weight. There is no limitation in the body of the claim that breathes life and meaning to the intended use of the device. The recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. Ex parte Masham, 2 USPQ2d 1647 (1987). Furthermore, note that the "surface" is not a positively claimed limitation.

Regarding claim 6:

Babich discloses a fluidic spray system comprising a fluidic oscillator 2,3 (column 2, lines 60-62, "chamber 3 adjoins the nozzle 2, for amplification of the oscillations generated in the nozzle 2") having an input 13 coupled to a supply of liquid A and a vortex valve 1 (see figure 2) immediately upstream of said fluidic oscillator, said vortex valve 1 having an output (outlet of chamber 3) which is connected to the input 13 of said fluidic oscillator 2, 3. The output (the gas

output through swirl chamber 1 and through outlet of chamber 3) is connected to the input 13 of the fluidic oscillator 2, 3 because liquid A flows through the outlets 21, 22 and mixes with the gas B. Therefore, the output (the gas output through swirl chamber 1 and through outlet of chamber 3) is (fluidly) connected to input 13.

Claim 6 recites "a fluidic oscillator." The term "fluid" can encompass, to name a few, a liquid, gas, or fluidized particles. The claim further recites the fluidic oscillator "coupled to a supply of liquid under pressure." Claim 6 does not require that the "liquid under pressure" be oscillated. Babich's pipe 4 has been considered part of the "fluidic oscillator" of claim 6. Therefore, the fluidic oscillator 2,3 of Babich is coupled to a supply of liquid A and the fluid B, gas in Babich's device, is oscillated. The oscillation is in the manner of acoustic oscillations of the gas. See Babich, column 2, lines 1-11.

Recitation of intended use, "for producing a liquid spray in which the spray droplets have a momentum such that said spary droplets do not bounce on impacting a surface and allows substantially unrestricted flows to be delivered to a point of utilization on said surface," in the preamble has been given no patentable weight. There is no limitation in the body of the claim that breathes life and meaning to the intended use of the device. The recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the

claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987). Furthermore, note that the "surface" is not a positively claimed limitation.

Regarding claim 7:

Babich discloses a fluidic oscillator spray system comprising a fluidic oscillator 2,3 (column 2, lines 60-62, "chamber 3 adjoins the nozzle 2, for amplification of the oscillations generated in the nozzle 2") and a non-restrictor pressure reducing means 4 coupling said oscillator 2, 3 to a source of liquid A.

Babich's pipe 4 is a non-restrictor pressure reducer because the friction of the flow at the pipe wall causes a decrease in pressure along the pipe length and the constant diameter of pipe 4 is non-restricted.

The recitation "non-restrictor pressure reducing means coupling said oscillator to a source of liquid for producing a liquid spray in which the spray droplets have a momentum and allows for producing droplets of larger diameters and a select range of diameters for similar operating pressures" has been considered as NOT invoking means plus function under 35 U.S.C. 112, sixth paragraph. First, the means plus function recitation violates the third prong under *Donaldson*, 16 F.3d at 1194, 29 USPQ2d at 1850. See MPEP 2181. The means plus function recites sufficient structure, i.e., "non-restrictor pressure reducing." Second, appellant's specification discloses to the contrary. Appellant's specification, on page 5, lines 8-9, discloses that, "Optionally, the non-restrictor pressure reducer is a vortex valve," but the specification never

discloses that the "non-restrictor pressure reducer" or the "vortex valve" provides the function "producing a liquid spray in which the spray droplets have a momentum and allows for producing droplets of larger diameters and a select range of diameters for similar operating pressures." Rather, the specification discloses, on page 5, line 24 through page 6, line 2,

A fluidic oscillator spray system for producing a liquid spray in which the spray droplets have a low momentum and allows for producing droplets of larger diameters and a narrower range of diameters for similar operating pressures.

The specification discloses that the "fluidic oscillator spray system" enables the function of "producing a liquid spray in which the spray droplets have a low momentum and allows for producing droplets of larger diameters and a narrower range of diameters for similar operating pressures."

If means plus function is invoked, the means plus function would be a double inclusion of the "fluidic oscillator" because the entire device, the "fluidic oscillator spray system," produces such a function. Therefore, claim 7 would be indefinite because of double inclusion of elements and/or non-enabled because the claim would, essentially, amount to nothing more than a single means claim. In order to avoid indefiniteness and non-enablement, claim 7 has been interpreted and considered as NOT invoking means plus function.

Non-invocation of means plus function leaves only one possible interpretation of

... for producing droplets of larger diameters and a narrower range of diameters for similar operating pressures.

The recitation can only be considered as an intended use of the entire device, the "fluidic oscillator spray system." And as such, the manner in which the device is intended to be used has been given no patentable weight. There is no limitation in the body of the claim that breathes life and meaning to the intended use of the device. The recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. Ex parte Masham, 2 USPQ2d 1647 (1987). Furthermore, note that the "surface" is not a positively claimed limitation.

Regarding claim 11:

Babich discloses a device comprising a fluidic spray nozzle 2,3 (column 2, lines 60-62, "chamber 3 adjoins the nozzle 2, for amplification of the oscillations generated in the nozzle 2") connectable to a source of liquid A under pressure, means 1 (vortex valve 1, see figure 2) for reducing the velocity of spray droplets issuing from said fluidic spray nozzle 2, 3 so that said spray droplets issuing from said fluidic spray nozzle so that said spray droplets have energy such that they do not bounce off said surface.

In the brief, appellant has identified the means plus function as a vortex valve. Babich disclose a vortex valve 1 where fluid B is induced into a circular/spiral flow in vortex valve 1. See Babich, figure 2.

Recitation of intended use, "for producing spray droplets which are adapted to adhere to a surface," in the preamble has been given no patentable weight. There is no limitation in the body of the claim that breathes life and meaning to the intended use of the device. The recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987). Furthermore, note that the "surface" is not a positively claimed limitation.

Claims 1, 2, 4, 6, 7 and 11 stand rejected under 35 U.S.C. 102(b) as being anticipated by Nekrasov et al. (3,614,961).

Regarding the intended use recitations and means plus function, claims 1, 6, 7 and 11 have been interpreted as indicated above.

Regarding claim 1:

Nekrasov discloses a fluidic spray system comprising a fluidic oscillator 2, 7 (column 3, lines 49-61, generating sonic and ultrasonic oscillations of fluid or gas) coupled to a supply of liquid A, B (Nekrasov discloses liquid in column 2, lines 55 and 60) and a vortex valve 1, 8 (see figure 2; inlet of nozzle 1 and generator 8 cause circular/spiral flow) immediately upstream of said fluidic oscillator 2, 7.

Regarding claims 2 and 4:

Nekrasov discloses a fluidic spray system comprising a fluidic oscillator 2,7 (column 3, lines 49-61, generating sonic and ultrasonic oscillations of fluid or gas) connected to a source of liquid A,B (Nekrasov discloses liquid in column 2, lines 55 and 60) under pressure and wherein said fluidic oscillator is a multiple power nozzle oscillator (two blades/nozzle 2 cause two fluid streams to combine and exit port 7) and a non-restrictor pressure reducer (vortex valve 1, 8; inlet of nozzle 1 and generator 8 cause circular/spiral flow) upstream of said fluidic oscillator 2, 7.

Recitation of intended use, "for producing a liquid spray in which the spray droplets have a momentum which allows spray droplets to be delivered to a selected surface area without said spray droplets bouncing off said selected surface," in the preamble has been given no patentable weight. There is no limitation in the body of the claim that breathes life and meaning to the intended use of the device. The recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987). Furthermore, note that the "surface" is not a positively claimed limitation.

Regarding claim 6:

Nekrasov discloses a fluidic spray system comprising a fluidic oscillator 2,7 (column 3, lines 49-61, generating sonic and ultrasonic oscillations of fluid or gas) having an input (ends of blades 2) coupled to a supply of liquid A,B (Nekrasov discloses liquid in column 2, lines 55 and 60) and a vortex valve 1, 8 (see figure 2; inlet of nozzle 1 and generator 8 cause circular/spiral flow) immediately upstream of said fluidic oscillator, said vortex valve 1, 8 having an output (nozzle 1) which is connected to the input (ends of blades 2) of said fluidic oscillator 2, 7.

Regarding claim 7:

Nekrasov discloses a fluidic oscillator spray system comprising a fluidic oscillator 2,7 (column 3, lines 49-61, generating sonic and ultrasonic oscillations of fluid or gas) and a non-restrictor pressure reducing means (vortex valve 1, 8; inlet of nozzle 1 and generator 8 cause circular/spiral flow) coupling said oscillator 2, 7 to a source of liquid A,B (Nekrasov discloses liquid in column 2, lines 55 and 60).

Regarding claim 11:

Nekrasov discloses a device comprising a fluidic spray nozzle 2, 7 connectable to a source of liquid A,B (Nekrasov discloses liquid in column 2, lines 55 and 60) under pressure, means (vortex valve 1, 8; inlet of nozzle 1 and

generator 8 cause circular/spiral flow) for reducing the velocity of spray droplets issuing from said fluidic spray nozzle 2, 7 so that said spray droplets issuing from said fluidic spray nozzle so that said spray droplets have energy such that they do not bounce off said surface.

In the brief, appellant has identified the means plus function as a vortex valve. Nekrasov disclose a vortex valve 1, 8 where fluid A, B is induced into a circular/spiral flow in vortex valve 1, 8. See Nekrasov, figure 2.

Claim 2 stands rejected under 35 U.S.C. 102(e) as being anticipated by Raghu (6,253,782)

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

The intended use recitation has been interpreted as indicated above for claim 2.

Raghu discloses a fluidic spray system comprising a fluidic oscillator IC connected to a source of liquid under pressure and wherein said fluidic oscillator

IC is a multiple power nozzle oscillator (interaction chamber IC has multiple power nozzles PN1, PN2) or a reversing chamber oscillator SF, SFM and a non-restrictor pressure reducer (fluid source of figure 6 or 11FN of figure 11A; the expansion of fluid as the fluid enters SF or 11FN causes a decrease in pressure due to the larger volume and cross section area of SF/11FN relative to the fluid source) upstream of said fluidic oscillator IC.

(10) Response to Argument

Appellant's arguments directed to the rejection of claims 2 and 4 under 35 U.S.C. 112, first paragraph is most because the rejection has been withdrawn.

Appellant's arguments directed to Babich:

Appellant argues the Babich is non-analogous art relying on the intended use recitation of the preamble. Non-analogous art is not a proper ground for traversing a rejection under 35 U.S.C. 102. Additionally, intended use language in the preamble is not given patentable weight where no limitation in the body of the claim breathes life and meaning into the intended use language. Is should be noted that appellant's apparatus too has operating parameters such as operating pressures and flow channel size (see appellant's specification, page 12, line 13 through page 13, line 3. One of ordinary skill in the art would also recognize that the intended use recitation, which is also a functional end result, is also dependent on other operating parameters such as type of fluid, viscosity of the fluid, fluid pressure, fluid flow rate, type of impact surface,

characteristic of the impact surface, distance of the spray system to the impact surface, etc. None of these parameters, which would directly affect the spray droplets from bouncing off the impact surface, is claimed. It appears that appellant is arguing that because the prior art does not provide a spray system which does not provide spray droplets which do not bounce off the impact surface, it is non-analogous art. Appellant is attempting to carve his own class of art by merely reciting the intended use of his device.

Appellant argues that Babich does not disclose a fluidic oscillator coupled to a supply of liquid under pressure and a vortex valve immediately upstream of said fluidic oscillator. As explained above, Babich discloses a fluidic oscillator 2,3 (column 2, lines 60-62, "chamber 3 adjoins the nozzle 2, for amplification of the oscillations generated in the nozzle 2") coupled to a supply of liquid A under pressure (inherent because the liquid A flows into the device) and a vortex valve 1 (see figure 2) immediately upstream of said fluidic oscillator. Claim 1 recites "a fluidic oscillator." The term "fluid" can encompass, to name a few, a liquid, gas, or fluidized particles. The claim further recites the fluidic oscillator "coupled to a supply of liquid under pressure." Claim 1 does not require that the "liquid under pressure" be oscillated. Babich's pipe 4 has been considered part of the "fluidic oscillator" of claim 1. Therefore, the fluidic oscillator 2,3 of Babich is coupled to a supply of liquid A and the fluid B, gas in Babich's device, is oscillated. The oscillation is in the manner of acoustic oscillations of the gas. See Babich, column 2, lines 1-11.

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Appellant argues that Babich's second chamber 10 is an ultrasonic wave resonator. Applicant's claims 1, 6 and 7 merely recite a fluidic oscillator. A fluidic oscillator requires, at a minimum, some involvement of fluid and oscillation. Babich teaches a fluid B (gas) which is oscillated (acoustic oscillation). See Babich, column 2, lines 10 and 61, where Babich literally uses the term "oscillations." The claims are not further defined to exclude acoustic oscillations.

Appellant argues that swirl chamber 1 is not used as a vortex valve and is not upstream of a fluidic oscillator. Swirl chamber 1 is a vortex valve because fluid flows into chamber 1 tangentially at the circumference of the chamber and causes a swirl which exits through the central longitudinal axis of swirl chamber 1 and into nozzle 2. Vortex is defined as a spiral motion of fluid within a limited area. See http://dictionary.com. The swirl chamber 1 is upstream of fluidic oscillator 2. The gas flows into swirl chamber 1 and then into nozzle 2.

Appellant argues that gas is not a liquid. There has been no assertion that gas is liquid. To do so would be unreasonable. Babich discloses a liquid A and gas B.

Regarding claim 6, appellant argues that Babich has no fluidic oscillator having an input coupled to a supply of liquid under pressure and a vortex valve immediately upstream of the fluidic oscillator, said vortex valve having an output which is connected to the input of the fluidic oscillator.

Babich discloses a fluidic spray system comprising a fluidic oscillator 2,3 (column 2, lines 60-62, "chamber 3 adjoins the nozzle 2, for amplification of the oscillations generated in the nozzle 2") having an input 13 coupled to a supply of liquid

A and a vortex valve 1 (see figure 2) immediately upstream of said fluidic oscillator, said vortex valve 1 having an output (outlet of chamber 3) which is connected to the input 13 of said fluidic oscillator 2, 3. The output (the gas output through swirl chamber 1 and through outlet of chamber 3) is connected to the input 13 of the fluidic oscillator 2, 3 because liquid A flows through the outlets 21, 22 and mixes with the gas B. Therefore, the output (the gas output through swirl chamber 1 and through outlet of chamber 3) is (fluidly) connected to input 13.

Regarding claim 7, appellant argues that Babich does not disclose an oscillator coupled to a source of liquid for producing a liquid spray in which the spray droplets have a momentum and allow for producing droplets of larger diameters and a selected range of diameters for similar operating pressures.

Babich discloses a fluidic oscillator spray system comprising a fluidic oscillator 2,3 (column 2, lines 60-62, "chamber 3 adjoins the nozzle 2, for amplification of the oscillations generated in the nozzle 2") and a non-restrictor pressure reducing means 4 coupling said oscillator 2, 3 to a source of liquid A.

For treatment of the recitation "for producing a liquid spray in which the spray droplets have a momentum and allow for producing droplets of larger diameters and a selected range of diameters for similar operating pressures," see the explanation in the rejection paragraph above.

Regarding claim 11, appellant argues that Babich does not teach the function of the "...means for reducing the velocity of the spray droplets issuing from said fluidic

spray nozzle so that said spray droplets have energy such that they do not bounce off said surface."

For treatment of the means plus function recitation of claim 11, see the explanation in the rejection paragraph above.

Appellant states that fluidic oscillators of the type specified in claim 2, for example, wave a liquid jet back and forth in ambient air to cause the jet of liquid to form the low momentum droplets. Appellant's statement is not commensurate in scope with the claimed invention. The claims does not require "... wave a liquid jet back and forth in ambient air..."

Appellant's arguments directed to Nekrasov:

Appellant argues the Nekrasov is non-analogous art relying on the intended use recitation of the preamble. As indicated above in response to appellant's arguments under Babich, non-analogous art is not a proper ground for traversing a rejection under 35 U.S.C. 102. Additionally, intended use language in the preamble is not given patentable weight where no limitation in the body of the claim breathes life and meaning into the intended use language.

Appellant argues that Nekrasov's resonator does not appear to be coupled to a liquid supply in the manner defined by the claims. Claims 1 and 2 require that the fluidic oscillator coupled to the liquid supply. Claim 6 requires that fluidic oscillator have an input coupled to the liquid supply. Claim 7 requires a non-restrictor pressure reducing means coupling the oscillator to a source of liquid. Claim 11 requires that a fluidic spray

nozzle connectable to a source of liquid. Claim 11 does not require an oscillator nor a liquid supply. It merely requires a fluidic nozzle which has the capability of being connected to a source of liquid under pressure.

Appellant recites almost the entirety of claim 2 and asserts that Nekrasov does not discloses claim 2. See the rejection paragraphs above which explicitly addresses each and every limitation in of the claims. Appellant also asserts that an ultrasonic whistle is neither a vortex valve upstream of a fluidic oscillator nor a non-restrictor pressure reducing means coupling a fluidic oscillator to a source of liquid, but appellant fails to indicate why. The rejection paragraphs above provide full explanation of how appellant's claims are readable on Nekrasov. Appellant has not further limited his fluidic oscillator or his vortex valve to differentiate them from the prior art. Appellant's claims are not distinguishable over the prior art merely because he calls them by another name.

Appellant's arguments directed to Raghu:

Appellant's argues that Raghu does not disclose an upstream non-restrictor pressure reducer. Raghu discloses an upstream non-restrictor pressure reducer (fluid source of figure 6 or 11FN of figure 11A) upstream of said fluidic oscillator IC. The expansion of fluid as the fluid enters SF or 11FN from the fluid source causes a decrease in pressure due to the larger volume and cross section area of SF/11FN relative to the fluid source.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

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